

Application No.: 10/807,947  
Amendment dated: February 18, 2009  
Reply to Office Action of: **August 18, 2008**  
Atty. Ref.: 501120-015

## EXHIBIT 1

### DECLARATION OF BRIAN GRADY, PHD.

**PATENT**

Applicant: **Marc Radow**  
Serial No.: 10/807,947  
Filed: March 24, 2004  
Title: RIMMING COMPOSITION  
Examiner: WEINSTEIN, Steven L.  
Group Art Unit: 1761

Confirmation No. 4071

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Mail Stop Amendment  
Commissioner for Patents  
P. O. Box 1450  
Alexandria, VA 22313-1450

**DECLARATION OF BRIAN P. GRADY, PHD., IN SUPPORT OF RESPONSE TO  
AUGUST 18, 2008 OFFICE ACTION**

Sir:

I, Brian P. Grady, PhD., hereby declare as follows:

1. I have personal knowledge of the facts stated herein, and any information presented based on information and belief is stated as being based on information and belief.

2. I am President's Associate Presidential Professor in the School of Chemical, Biological and Materials Engineering, at the University of Oklahoma. I am an expert in the area of wetting agents, emulsifiers, adhesion and polymers. As evidence of the first two, I am the Associate Director for the Institute of Applied Surfactant Research at the University of Oklahoma and have published tens of articles on these subjects in peer-reviewed journals as well as being invited to talk on these subjects all over the world. As evidence of the latter two, I serve on the Executive Committee of the Society of Plastics Engineers, have taught classes on both subjects, and have published tens of articles on these subjects in peer-reviewed journals as well as being invited to talk on these subjects all over the world.

3. I have reviewed the patent application of Marc Radow, and, based on my reading of the application, I am familiar with the compositions described in the application. I am also familiar with the amended claims currently being presented in the patent application. Also based on my reading of the application, I am familiar with the intended applications of the described compositions. Additionally, I have reviewed the August 18, 2008 Office Action in the application, as well as the patents and patent applications referenced in the Office Action ("the Applied Prior Art").

4. The Radow application discloses compositions used to coat drink ware surfaces, including glass, plastic and other materials. The compositions include edible aqueous compositions of adhesives, for example corn syrup and/or sugar, wetting agents, for example polysorbates, viscosity or texture modifiers, for example gums, as well as possibly other components. In their intended application, the compositions are applied to surfaces of drink ware so that crystallized or dried flavor materials such as sugars and spices, or the like, can be adhered to the drink ware using the compositions. It is desirable to have the compositions physically stable so that they do not run or drip on the drink ware, and so that they reliably hold the flavor materials in place. Because the compositions are used on drink ware, the compositions are also edible. Additionally, the compositions in the Radow examples are selected so they impart no noticeable undesirable flavors or odors to the drink ware.

5. In the context of the Radow patent application, the components of the sugar and/or corn syrup are used as adhesives. Their relative concentrations, other described characteristics of the compositions, as well as the intended applications of the compositions establish that these components are used in the solution to function as an adhesive.

6. The Radow application identifies a number of surfactants, among them ethyl alcohol and polysorbates. These surfactants are used as wetting agents to improve wetting of the composition to the drink ware, as noted at the end of paragraph 34 of the published patent application, as well as in other parts of the

application. Many of the Applied Prior Art describe emulsifiers; functionally, an emulsifier is not a wetting agent (and vice-versa). The purpose of the former is to allow two immiscible liquids to form kinetically stable two-phase dispersions, while the purpose of the latter is to cause a liquid to wet a solid surface. The former is not at all relevant to the Radow patent application, while the latter clearly is one of the parts of the Radow formulation.

7. It would not have been obvious to combine any or all of the applied Applied Prior Art in the Office Action to arrive at the compositions as presently recited in the claims, in my opinion based on my knowledge and experience in the field. One skilled in the art, having in mind the Applied Prior Art, would not appreciate that adhesives in the concentrations recited in any Applied Prior Art, in particular either Albert or Luhadiya separately or taken together, could be reduced further and still have a composition with sufficient adhesive power. Therefore, there is no support for combining the Applied Prior Art in the manner described in the Office Action to produce the claimed compositions.

8. Albert describes an adhesive to be used to affix glitter to foods. Albert describes adhesive concentrations having a lower boundary of 40% in the claims. The example given has an adhesive level of 60%. There is nothing in Albert that would suggest that adhesive concentrations below 40% would be acceptable in any of the applications described in the Applied Prior Art. In addition, Albert does not describe any type of surfactant, wetting agent or other compound for affecting wetting properties.

9. Luhidaya describes an adhesive to affix substances to foods that improve appearance, nutritional or organoleptic properties. The composition has an adhesive, a viscosity modifier and a wetting agent. However, Luhadiya describes adhesive concentrations having a lower boundary of 45%. There is nothing in Luhadiya that would suggest that adhesive concentrations below 45%, let alone the 40% of Albert, would be acceptable in any of the applications described in the Applied Prior Art. If anything 40% is the exception rather than the rule, as clearly

demonstrated by the Applied Prior Art as well as the examples in all other Prior Art. In summary, nothing in the Applied Prior Part would suggest lower concentrations of adhesive.

10. The Chen patent application uses an acid to coat a straw. The compositions in Chen would not be used with Albert or Luhadiya because the former uses acid treatment coupled with higher temperatures. The addition of acid to the compositions of either Albert or Luhidaya coupled with the higher temperatures could cause undesirable chemical reactions which in turn make the latter compositions totally unsuitable for their desired function. Further, the mechanism by which the acid treatment adheres to the substrate is very different in the Chen case. The Radow compositions use no acid.

11. Maegli uses oil-based systems with emulsified water containing the sugar components to affix seasoning to snack food. An emulsifier is required; an emulsifier is needed in this formulation to solubilize the water in the oil-based system, which is not relevant to Radow's patent application. Maegli requires an emulsified oil-water system to be effective, and Radow's system is not an emulsified system. The oil will also contribute to the adhesive function of this coating and hence the percentage of adhesive is minimally 75%. It would be non-obvious to someone skilled in the art that the adhesive amount could be reduced to 36% or less based on this patent, or any other of the Applied Prior Art. In addition, Maegli does not describe any type of surfactant, wetting agent or other compound for affecting wetting properties.

12. Schleider identifies adhesives as being a solid and melted on to achieve adhesion. In Schleider, the adhesive and solid flavorant are applied simultaneously, instead of sequentially as is done in the Radow patent. The concentration of the adhesive function of the adhesive solid is 100%. It would be non-obvious to someone skilled in the art that the adhesive in the adhesive solid could be reduced to 36% or less based on this patent, or any other of the Applied

Prior Art. In addition, Schleider does not describe any type of surfactant, wetting agent or other compound for affecting wetting properties.

13. Emig describes many things, only one of which is relevant to Radow et al. Emig describes a sugar concentrate solution, which can be used to affix particulates to drinking cups. The concentration of the sugar in the concentrate is not given. It would be non-obvious to someone skilled in the art that the sugar in the sugar concentrate could be reduced to 36% or less based on this patent, or any other of the Applied Prior Art. In addition, Emig does not describe any type of surfactant, wetting agent or other compound for affecting wetting properties.

14. Rohde describes an emulsion applied to coffee filter inserts. The emulsion consists of modified starch with water, along with flavoring components. Percentages are not given. It would be non-obvious to someone skilled in the art that the adhesive, i.e. the modified corn starch, could be as low as 36% or less based on this patent, or any other of the Applied Prior Art.

15. Fiorella uses a mechanical means (perforations or grooves) to enable the attachment of flavoring components to a straw / stirrer. Some of the flavoring components can be used as adhesives, but Fiorella clearly states that the composition is formulated to be non-sticky after the solvent, typically water, evaporates. The mechanism of adhesion is very different than that of Radow et al. in that these grooves enable the flavoring components to remain attached to the stirrer/straw, rather than an adhesive. It would be non-obvious to someone skilled in the art that the adhesive could be as low as 36% and still maintain sufficient adhesive functionality without the grooves being present. In addition, Fiorella does not describe any type of surfactant, wetting agent or other compound for affecting wetting properties.

16. Holloway uses a composition with a minimum adhesive level of 80% to affix a dry sugar or salt powder to nuts. It would be non-obvious to someone skilled in the art that the adhesive amount could be reduced to 36% or less based on this

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patent, or any other of the Applied Prior Art. In addition, Holloway does not describe any type of surfactant, wetting agent or other compound for affecting wetting properties.

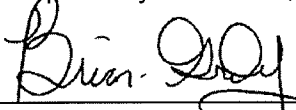
17. Hoover uses an emulsified oil-water system to cause a coating on nuts, as with other emulsified systems; these types of systems are not relevant to the system of Radow et al. Also, the adhesive levels in the examples of the Hoover patent are all above 60%. In the claims a minimum of 40% is stated, which is still well above the Radow concentration. In addition, Hoover does not describe any type of surfactant, wetting agent or other compound for affecting wetting properties.

18. In view of the foregoing, it is my considered opinion that it would be non-obvious to someone skilled in the art that, for application on drink ware, the adhesive amounts as claimed could be reduced to 36% or less based on any of the Applied Prior Art.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Dated: February 4, 2009

Respectfully submitted,

  
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Brian P. Grady, PhD.

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